

II. Remarks

In the Office Action mailed June 6, 2003, all pending claims were rejected under 35 U.S.C. 102(e) or 103(a).

For the following reasons, Applicants request entry of this Amendment under the provisions of 37 C.F.R. 1.116, amendments to the independent claims of this application and allowance thereof.

The Examiner has rejected claims 1, 2, 5 through 10, 12 through 15, 17 through 20, 22 and 24 through 26 under 35 U.S.C. 102(e) for alleged anticipation by Muirhead, U.S. Patent No. 6,294,114. It is the Examiner's position that Muirhead teaches every feature recited in the above-noted claims. Applicant's attorney respectfully contravenes this position.

Muirhead is directed to a four station rotary thermoforming machine. As the prior art cited by Applicant makes apparent, four station thermoforming machines are well known in the prior art and Muirhead teaches one more variation on that theme.

In contrast, Applicant's device represents a breakthrough and utilizes six adjacent stations: two loading, two heating, one forming and one unloading. This configuration optimizes process cycle times by dividing or breaking down the various steps necessary to thermoform a two panel article into steps requiring approximately equal time intervals. It is understood in the industrial engineering art that the slowest or longest duration process step controls or limits the maximum speed of a sequential process. This rule is reflected in the configuration of the instant device which includes six working or process stations, two of which, heating are the same. Muirhead as well as the other art of record disclose but four.

The four stations Muirhead does disclose are well illustrated in Figure 1, are a heated loading and unloading station, two additional heating stations and a fourth, forming station.

This configuration is distinct from and renders Applicant's revised claims both novel and non-obvious. For example, each independent claim now recites affirmatively that the device is a six station device. Additionally, Applicant's first loading stations in independent claims 1, 9 and 19 are recited as unheated. This is distinct from the heated loading and unloading station of Muirhead. The claims also recite that the six station device specifically includes a second loading station adjacent the first loading station. Only a single loading station appears in Muirhead. Additionally, the independent claims now recite that an unloading station is included and disposed adjacent the first unheated loading station. Last of all, the Examiner states that Muirhead discloses a means for inserting a preform as illustrated in Figure 7 and reference numeral 27. It is true that Muirhead refers to object 27 as a thermoplastic rigid member. However, what the disclosure lacks is any teaching of the means for inserting such preform. The undersigned as reviewed Muirhead carefully and found no teaching regarding the structure or operation of any device or mechanism which inserts such a preform.

Inasmuch as none of these claimed features are either disclosed or suggested by Muirhead, it is submitted that independent claims 1, 8 and 19 recite patentable subject matter and should be allowed. For at least the foregoing reasons, it is submitted that claims 1, 2, 5 through 10, 12 through 15, 17 through 20, 22 and 24 through 26, as amended, recite patentable subject matter in a manner consistent with 35 U.S.C. 102(e) and 103(a) and should be allowed.

Claims 3, 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muirhead and further in view of Weisner et al. Weisner et al. teach an apparatus for molding skylights which is not only functionally distinct but also physically distinct inasmuch as its product includes but a single layer of material. The Examiner relies upon Weisner et al. for its teaching of a vacuum cutoff. While Weisner et al. teach a limit switch, it relates to vacuum forming of a product not heating and droop. Weisner et al. states that several pulses of vacuum are effective. This suggests that repeated application and removal of the vacuum are in fact utilized in this process. From the foregoing, it is apparent that Weisner et al. is addressing a matter distinct from Applicant's situation and it is clear that

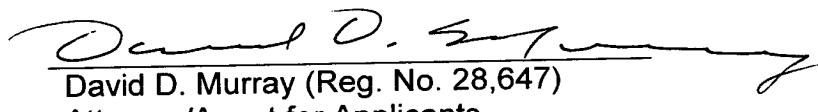
Weisner *et al.* does not suggest the combination or modification of Muirhead, nor vice versa, to support a *prima facie* obviousness rejection. When read in conjunction with their respective independent claims, it is submitted that claims 3, 16 and 21 are patentable over the combination of Muirhead and Weisner *et al.* and should be allowed.

Finally, claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over Muirhead in view of Walker. Walker teaches an apparatus for loading and unloading molded sheets having a plurality of suction cups. As noted above, Muirhead contains absolutely no disclosure regarding any type of material loading and unloading assembly. If Muirhead were to disclose some type of loading apparatus distinct from suction cups, an argument that this suggestion to combine and modify would have vitality. As it stands, however, only Applicant's own disclosure links the teaching of Walker with that of Muirhead. Such hindsight reconstruction of an Applicant's invention is decidedly improper. Hence, claim 4 also recites allowable subject matter.

The foregoing claim revisions and arguments have been submitted in a *bonafide* attempt to resolve all outstanding issues currently residing in this patent application and obtain allowance or, alternatively, place these claims in better form for consideration on appeal. Should any issues remain that the Examiner believes could expeditiously be resolved in order to achieve allowance of this patent application exists, is encouraged to contact the undersigned by telephone.

Respectfully submitted,

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Date


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